

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE  
 Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 or Fax (703) 746-4000

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22195 7590 09/24/2004

HUMAN GENOME SCIENCES INC  
 INTELLECTUAL PROPERTY DEPT.  
 14200 SHADY GROVE ROAD  
 ROCKVILLE, MD 20850

11/24/2004 NNGUYEN2 00000247 083425 09830230

01 FC:1501 1370.00 DA  
 02 FC:8001 3.00 DA



Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,230	09/27/2001	Gil H. Choi	PB481US	3043

TITLE OF INVENTION: LYME DISEASE VACCINES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$0	\$1330	12/27/2004

EXAMINER	ART UNIT	CLASS-SUBCLASS
TUNG, JOYCE	1637	435-006000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

Human Genome Sciences, Inc.

2

3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☒ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☒ Advance Order - # of Copies 1

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☒ The Director is hereby authorized to charge the required fee(s), or credit any overpayment, to Deposit Account Number 08-3425 (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature

Date

November 23, 2004

Typed or printed name

Mark J. Hyman

Registration No.

46,789

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



IN LIEU OF PTO/SB/17 (10-04v2)

Please note request to charge additional fees during the pendency of the application.

<h1 style="margin: 0;">FEE TRANSMITTAL</h1> <h2 style="margin: 0;">for FY 2005</h2> <p style="font-size: small; margin: 0;">Effective 10/01/2004. Patent fees are subject to annual revision.</p>		<b>Complete if Known</b>																																																																																																																																																																																																																																																																																									
<div style="border: 1px solid black; padding: 5px;"><input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27</div> <div style="border: 1px solid black; padding: 5px;"><b>TOTAL AMOUNT OF PAYMENT</b>      (\$) <b>1,373.00</b></div>		Application Number	09/830,230																																																																																																																																																																																																																																																																																								
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		Examiner Name	J. Tung																																																																																																																																																																																																																																																																																								
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<div style="display: flex; justify-content: space-between;"><div style="width: 45%;"><b>METHOD OF PAYMENT</b> (check all that apply)<div style="display: flex; justify-content: space-between; font-size: x-small;"><div><input type="checkbox"/> Check    <input type="checkbox"/> Credit Card    <input type="checkbox"/> Money Order    <input type="checkbox"/> Other    <input type="checkbox"/> None</div><div><input checked="" type="checkbox"/> Deposit Account:<div style="border: 1px solid black; padding: 2px; margin-top: 5px;">08-3425</div><div style="border: 1px solid black; padding: 2px; margin-top: 5px;">Human Genome Sciences, Inc.</div></div></div><div style="font-size: x-small; margin-top: 5px;"><b>The Director is authorized to:</b> (check all that apply)<div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Charge fee(s) indicated below    <input checked="" type="checkbox"/> Credit any overpayments</div><div><input checked="" type="checkbox"/> Charge any additional fee(s) or any underpayment of fee(s)</div><div><input type="checkbox"/> Charge fee(s) indicated below, <b>except for the filing fee</b> to the above-identified deposit account.</div><div><input checked="" type="checkbox"/> Charge any additional fee(s) during the <b>pendency</b> of the application</div></div></div></div><div style="width: 50%;"><b>FEE CALCULATION</b> (continued)<h3 style="margin: 5px 0;">3. ADDITIONAL FEES</h3><table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"><thead><tr><th colspan="2">Large Entity</th><th colspan="2">Small Entity</th><th rowspan="2">Fee Description</th><th rowspan="2">Fee Paid</th></tr><tr><th>Fee Code</th><th>Fee (\$)</th><th>Fee Code</th><th>Fee (\$)</th></tr></thead><tbody><tr><td>1051</td><td>130</td><td>2051</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr><tr><td>1052</td><td>50</td><td>2052</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet.</td><td></td></tr><tr><td>1053</td><td>130</td><td>1053</td><td>130</td><td>Non-English specification</td><td></td></tr><tr><td>1812</td><td>2,520</td><td>1812</td><td>2,520</td><td>For filing a request for <i>ex parte</i> reexamination</td><td></td></tr><tr><td>1804</td><td>920*</td><td>1804</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr><tr><td>1805</td><td>1,840*</td><td>1805</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr><tr><td>1251</td><td>110</td><td>2251</td><td>55</td><td>Extension for reply within first month</td><td></td></tr><tr><td>1252</td><td>430</td><td>2252</td><td>215</td><td>Extension for reply within second month</td><td></td></tr><tr><td>1253</td><td>980</td><td>2253</td><td>490</td><td>Extension for reply within third month</td><td></td></tr><tr><td>1254</td><td>1,530</td><td>2254</td><td>765</td><td>Extension for reply within fourth month</td><td></td></tr><tr><td>1255</td><td>2,080</td><td>2255</td><td>1,040</td><td>Extension for reply within fifth month</td><td></td></tr><tr><td>1401</td><td>340</td><td>2401</td><td>170</td><td>Notice of Appeal</td><td></td></tr><tr><td>1402</td><td>340</td><td>2402</td><td>170</td><td>Filing a brief in support of an appeal</td><td></td></tr><tr><td>1403</td><td>300</td><td>2403</td><td>150</td><td>Request for oral hearing</td><td></td></tr><tr><td>1451</td><td>1,510</td><td>1451</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr><tr><td>1452</td><td>110</td><td>2452</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr><tr><td>1453</td><td>1,370</td><td>2453</td><td>685</td><td>Petition to revive - unintentional</td><td></td></tr><tr><td>1501</td><td>1,370</td><td>2501</td><td>685</td><td>Utility issue fee (or reissue)</td><td>1,370.00</td></tr><tr><td>1502</td><td>490</td><td>2502</td><td>245</td><td>Design issue fee</td><td></td></tr><tr><td>1503</td><td>660</td><td>2503</td><td>330</td><td>Plant issue fee</td><td></td></tr><tr><td>1460</td><td>130</td><td>1460</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr><tr><td>1807</td><td>50</td><td>1807</td><td>50</td><td>Processing fee under 37 CFR 1.17(q)</td><td></td></tr><tr><td>1806</td><td>180</td><td>1806</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr><tr><td>8021</td><td>40</td><td>8021</td><td>40</td><td>Recording each patent assignment per property (times number of properties)</td><td></td></tr><tr><td>1809</td><td>790</td><td>2809</td><td>395</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr><tr><td>1810</td><td>790</td><td>2810</td><td>395</td><td>For each additional invention to be examined (37CFR 1.129(b))</td><td></td></tr><tr><td>1801</td><td>790</td><td>2801</td><td>395</td><td>Request for Continued Examination (RCE)</td><td></td></tr><tr><td>1802</td><td>900</td><td>1802</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr><tr><td colspan="4">Other fee (specify)    8001    Printed copy of patent w/o color</td><td>3.00</td></tr><tr><td colspan="4">*Reduced by Basic Filing Fee Paid</td><td><b>SUBTOTAL (3)</b>    (\$)    1,373.00</td></tr></tbody></table></div></div> <div style="width: 45%;"><h3 style="margin: 5px 0;">1. 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EXTRA CLAIM FEES FOR UTILITY AND REISSUE</h3><table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"><thead><tr><th colspan="2">Large Entity</th><th colspan="2">Small Entity</th><th rowspan="2">Fee Description</th><th rowspan="2">Fee Paid</th></tr><tr><th>Fee Code</th><th>Fee (\$)</th><th>Fee Code</th><th>Fee (\$)</th></tr></thead><tbody><tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td><td></td></tr><tr><td>1201</td><td>88</td><td>2201</td><td>44</td><td>Independent claims in excess of 3</td><td></td></tr><tr><td>1203</td><td>300</td><td>2203</td><td>150</td><td>Multiple dependent claim, if not paid</td><td></td></tr><tr><td>1204</td><td>88</td><td>2204</td><td>44</td><td>** Reissue independent claims over original patent</td><td></td></tr><tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr><tr><td colspan="4"><b>SUBTOTAL (2)</b>    (\$)    0.00</td><td colspan="2"></td></tr></tbody></table><p style="font-size: x-small; margin-top: 5px;">**or number previously paid, if greater; For Reissues, see above</p></div>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1051	130	2051	65	Surcharge - late filing fee or oath		1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.		1053	130	1053	130	Non-English specification		1812	2,520	1812	2,520	For filing a request for <i>ex parte</i> reexamination		1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action		1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action		1251	110	2251	55	Extension for reply within first month		1252	430	2252	215	Extension for reply within second month		1253	980	2253	490	Extension for reply within third month		1254	1,530	2254	765	Extension for reply within fourth month		1255	2,080	2255	1,040	Extension for reply within fifth month		1401	340	2401	170	Notice of Appeal		1402	340	2402	170	Filing a brief in support of an appeal		1403	300	2403	150	Request for oral hearing		1451	1,510	1451	1,510	Petition to institute a public use proceeding		1452	110	2452	55	Petition to revive - unavoidable		1453	1,370	2453	685	Petition to revive - unintentional		1501	1,370	2501	685	Utility issue fee (or reissue)	1,370.00	1502	490	2502	245	Design issue fee		1503	660	2503	330	Plant issue fee		1460	130	1460	130	Petitions to the Commissioner		1807	50	1807	50	Processing fee under 37 CFR 1.17(q)		1806	180	1806	180	Submission of Information Disclosure Stmt		8021	40	8021	40	Recording each patent assignment per property (times number of properties)		1809	790	2809	395	Filing a submission after final rejection (37 CFR 1.129(a))		1810	790	2810	395	For each additional invention to be examined (37CFR 1.129(b))		1801	790	2801	395	Request for Continued Examination (RCE)		1802	900	1802	900	Request for expedited examination of a design application		Other fee (specify)    8001    Printed copy of patent w/o color				3.00	*Reduced by Basic Filing Fee Paid				<b>SUBTOTAL (3)</b> (\$)    1,373.00	Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1001	790	2001	395	Utility filing fee		1002	350	2002	175	Design filing fee		1003	550	2003	275	Plant filing fee		1004	790	2004	395	Reissue filing fee		1005	160	2005	80	Provisional filing fee		<b>SUBTOTAL (1)</b> (\$)    0.00						Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	1202	18	2202	9	Claims in excess of 20		1201	88	2201	44	Independent claims in excess of 3		1203	300	2203	150	Multiple dependent claim, if not paid		1204	88	2204	44	** Reissue independent claims over original patent		1205	18	2205	9	** Reissue claims in excess of 20 and over original patent		<b>SUBTOTAL (2)</b> (\$)    0.00					
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1202	18	2202	9	Claims in excess of 20																																																																																																																																																																																																																																																																																							
1201	88	2201	44	Independent claims in excess of 3																																																																																																																																																																																																																																																																																							
1203	300	2203	150	Multiple dependent claim, if not paid																																																																																																																																																																																																																																																																																							
1204	88	2204	44	** Reissue independent claims over original patent																																																																																																																																																																																																																																																																																							
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent																																																																																																																																																																																																																																																																																							
<b>SUBTOTAL (2)</b> (\$)    0.00																																																																																																																																																																																																																																																																																											

**SUBMITTED BY**

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Signature

Date    November 23, 2004



Docket No.: PB481US  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Choi et al.

Allowed: September 24, 2004

Application No.: 09/830,230

Confirmation No.: 3043

Filed: April 24, 2001

Art Unit: 1637

For: Lyme Disease Vaccines

Examiner: J. Tung

MS Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

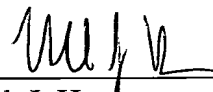
Sir:

In response to the Notice of Allowability and Fees Due, mailed September 24, 2004,  
Applicants submit herewith: (1) Fee Transmittal, with appropriate fees; and (2) Part B - Fee(s)  
Transmittal (Form PTOL-8), with fees.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency,  
or credit any overpayment, to our Deposit Account No. 08-3425.

Dated: November 23, 2004

Respectfully submitted,

By   
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